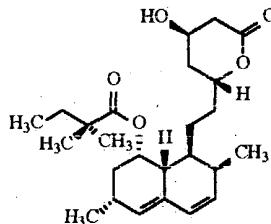


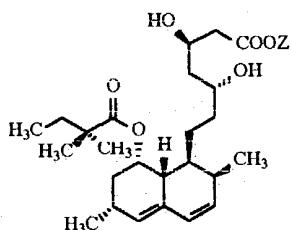
WE CLAIM:

1. A process for lactonization to produce highly pure simvastatin of Formula I

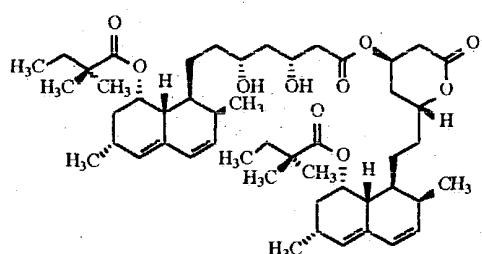
**Formula I**

5.

which comprises the steps of:

**Formula II**

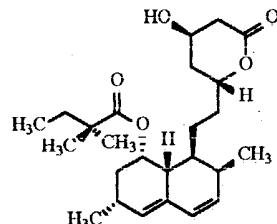
starting with a compound of Formula II where Z is H or NH₄,
mixing in a mixture of acetonitrile and glacial acetic acid,
reacting the mixture under anhydrous conditions wherein the dimer impurity of
10 Formula III formed is less than 0.1%,

**Formula III**

adding water to the reaction mixture to form a precipitate of simvastatin of Formula I.

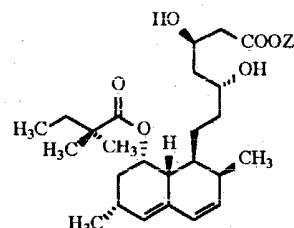
2. The process according to claim 1 wherein Z is NH₄.
3. The process according to claim 1 wherein the said reaction temperature is 50-80°C.
4. The process according to claim 1 where the said reaction temperature is 60-70°C.
5. A process for lactonization to produce highly pure simvastatin of Formula I

5



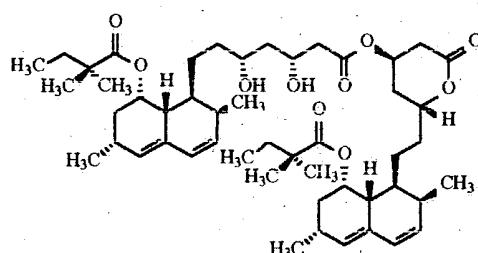
Formula I

comprising the steps of :



Formula II

- starting with a compound of Formula II where Z is H or NH₄,
- 10 mixing in a mixture of acetonitrile and glacial acetic acid,
- reacting the mixture under anhydrous conditions wherein the dimer impurity of
- Formula III formed is less than 0.1%,



Formula III

precipitating simvastatin of Formula I from the reaction mixture,
purifying the said Simvastatin precipitate.